

CLAIMS

What is claimed is:

1. A controller for controlling a cursor, comprising:

5 an identifying module for identifying at least one of a first period when a cursor is in motion and a second period when said cursor is not in motion; and

a calibrating module for calibrating an input parameter signal using a first hands-off test during said first period and a second hands-off test, different than said first hands-off test, during said second period.

10 2. The controller according to claim 1, wherein said identifying module inputs said input parameter signal from a force sensor, and wherein said calibrating module outputs a calibrated input parameter signal to an output module.

15 3. The controller according to claim 2, wherein said input parameter signal comprises an input parameter signal detected during a period when a pointing stick connected to said force sensor is untouched by a user.

4. The controller according to claim 2, wherein a transfer function for generating said cursor movement signal comprises a dead band within which said cursor movement signal causes no cursor movement for a non-zero input parameter signal.

20 5. The controller according to claim 1, wherein said calibrating module calibrates said input
YOR920030255US1

parameter signal during a hands-off period.

6. The controller according to claim 1, wherein said first and second hands-off tests are used by said calibrating module to determine a hands-off period during which a device for controlling

5 said cursor is not being touched by a user, and

wherein said calibrating module calibrates a significant input parameter signal by identifying an input parameter signal detected during said hands-off period as having a zero value, relative to which said significant input parameter signal is measured.

10 7. The controller according to claim 1, wherein said input parameter signal is calibrated to inhibit a cursor drift.

8. The controller according to claim 1, wherein said second hands-off test is less stringent than said first hands-off test.

15 9. The controller according to claim 1, wherein said first hands-off test comprises a duration of at least about 5 seconds, and said second hands-off test comprises no more than about 0.53 seconds.

20 10. A cursor control system, comprising:
a force sensor which generates an input parameter signal; and
a controller operably coupled to said force sensor, comprising:

YOR920030255US1

an identifying module for identifying at least one of a first period when a cursor is in motion and a second period when said cursor is not in motion; and

a calibrating module for calibrating an input parameter signal using a first hands-off test during said first period and a second hands-off test, different than said first hands-off test, during said second period.

11. The cursor control system according to claim 10, further comprising:

an output module which receives a calibrated input parameter signal from said calibrating module and outputs a cursor movement signal based on said calibrated input parameter signal.

12. The cursor control system according to claim 10, wherein said force sensor comprises a pointing device which is integrally-formed in a keyboard assembly.

13. The cursor control system according to claim 10, wherein said calibrating module calibrates said input parameter signal during a hands-off period.

14. The cursor control system according to claim 10, wherein said first hands-off test comprises a first sampling time, and said second hands-off test comprises a second sampling time which is less than said first sampling time.

15. The cursor control system according to claim 10, wherein said first hands-off test comprises a duration of at least about 5 seconds, and said second hands-off test comprises no more than about 1 second.

YOR920030255US1

16. A keyboard assembly comprising the cursor control system according to claim 10,
wherein said force sensor comprises a pointing device which is integrally-formed in a keyboard.

5 17. A computer system, comprising
a keyboard assembly comprising the cursor control system according to claim 10; and
a display device for displaying a cursor controlled by said cursor control system.

18. A method of controlling a cursor, comprising:
10 identifying at least one of a first period when a cursor is in motion and a second period
when said cursor is not in motion; and
calibrating an input parameter signal using a first hands-off test during said first period
and a second hands-off test, different than said first hands-off test, during said second period.

15 19. A method of controlling a cursor, comprising:
identifying at least one of a first period when a cursor is in motion and a second period
when said cursor is not in motion;
determining a hands-off period during which a device for controlling said cursor is not
being touched by a user, by using a first hands-off test during said first period and a second
20 hands-off test different than said first hands-off test during said second period; and
calibrating a significant input parameter signal by identifying an input parameter signal
detected during said hands-off period as having a zero value, relative to which said significant
input parameter signal is measured.

YOR920030255US1

20. A programmable storage medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method of controlling a cursor, said method comprising:

5 identifying at least one of a first period when a cursor is in motion and a second period when said cursor is not in motion; and

calibrating an input parameter signal using a first hands-off test during said first period and a second hands-off test, different than said first hands-off test, during said second period.

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